



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR LR636 018081-1275

Component
Diesel Engine

Fluid
{not provided} (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is SAE 30 Diesel Engine Oil. Please confirm the oil type and grade, and specify the brand of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278845	---	---
Sample Date		Client Info		15 Feb 2024	---	---
Machine Age	hrs	Client Info		5913	---	---
Oil Age	hrs	Client Info		0	---	---
Filter Age	hrs	Client Info		0	---	---
Oil Changed		Client Info		Not Changd	---	---
Filter Changed		Client Info		N/A	---	---
Sample Status				MARGINAL	---	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	26	---	---
Chromium	ppm	ASTM D5185(m)	>5	4	---	---
Nickel	ppm	ASTM D5185(m)	>5	<1	---	---
Titanium	ppm	ASTM D5185(m)		0	---	---
Silver	ppm	ASTM D5185(m)	>3	0	---	---
Aluminum	ppm	ASTM D5185(m)	>15	7	---	---
Lead	ppm	ASTM D5185(m)	>30	1	---	---
Copper	ppm	ASTM D5185(m)	>125	5	---	---
Tin	ppm	ASTM D5185(m)	>5	<1	---	---
Vanadium	ppm	ASTM D5185(m)		0	---	---
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---

CONTAMINATION

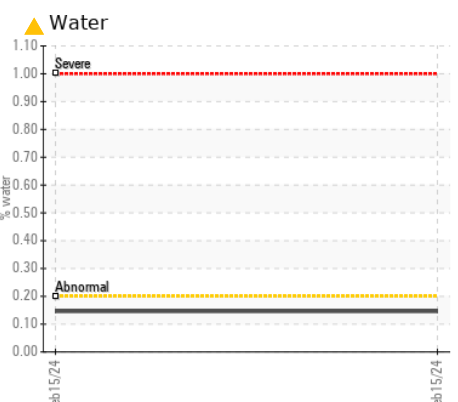
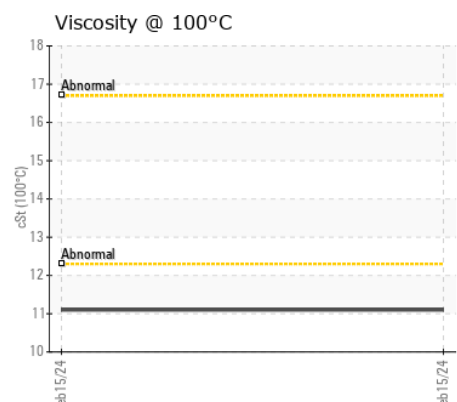
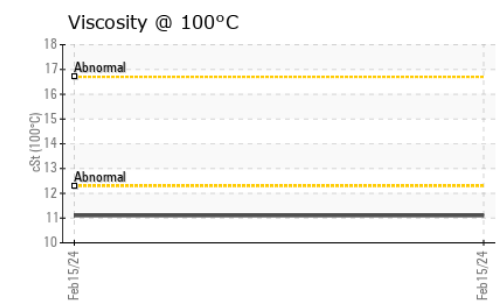
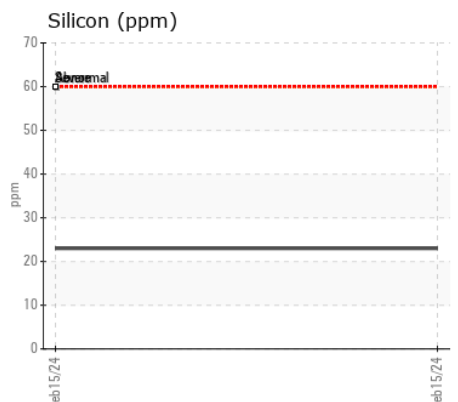
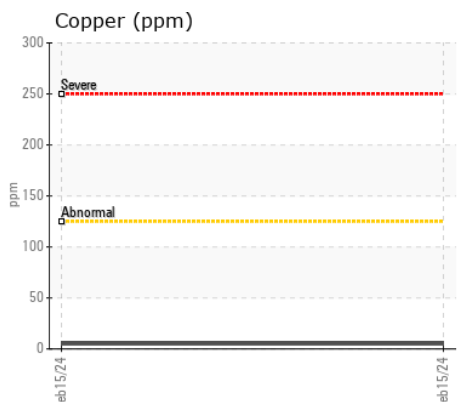
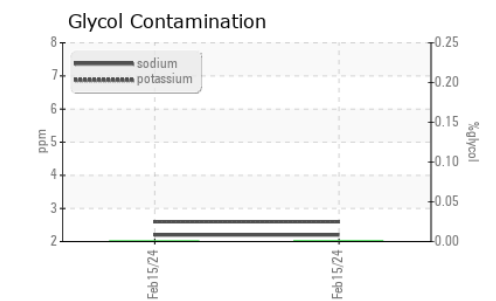
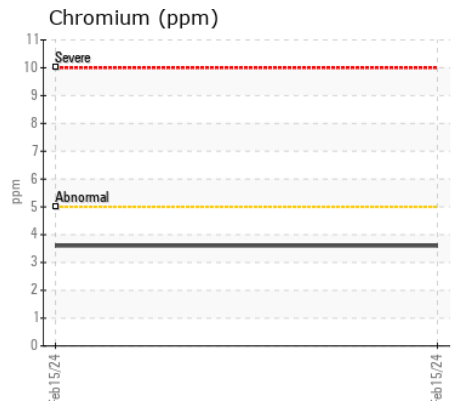
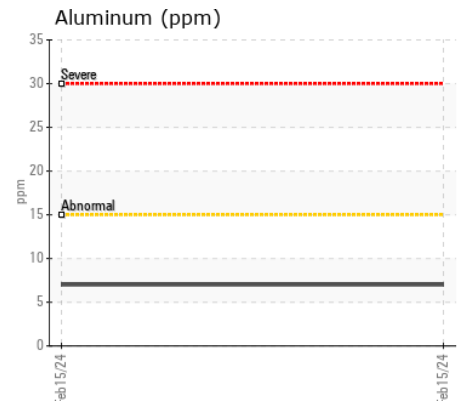
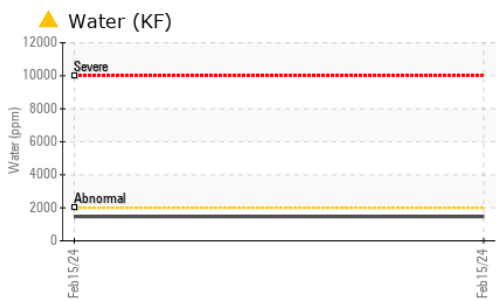
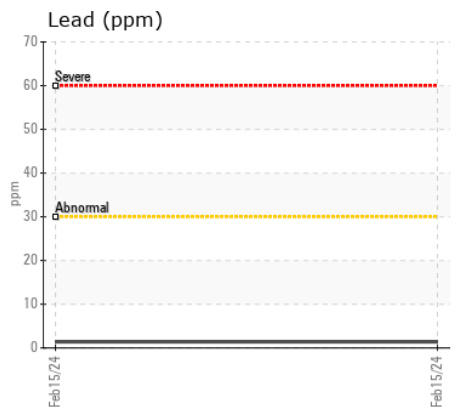
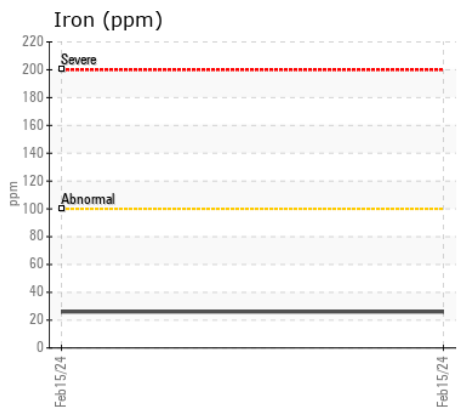
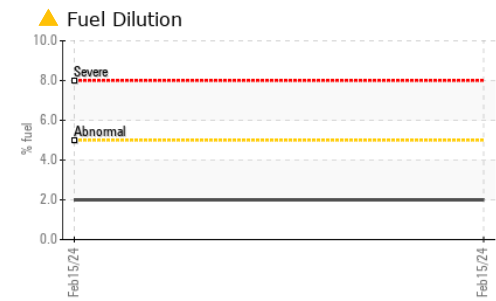
Light fuel dilution occurring. There is a trace of moisture present in the oil. Test for glycol is negative. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>60	23	---	---
Potassium	ppm	ASTM D5185(m)	>20	3	---	---
Fuel	%	ASTM D7593*	>5	▲ 2	---	---
Water	%	ASTM D6304*	>0.2	▲ 0.146	---	---
ppm Water	ppm	ASTM D6304*	>2000	▲ 1468	---	---
Glycol	%	ASTM D7922*		0.0	---	---
Soot %	%	ASTM D7844*	>3	0	---	---
Nitration	Abs/cm	ASTM D7624*	>20	10.1	---	---
Sulfation	Abs/.1mm	ASTM D7415*	>30	20.4	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	NONE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.2	▲ .2%	---	---

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		2	---	---
Boron	ppm	ASTM D5185(m)		1	---	---
Barium	ppm	ASTM D5185(m)		0	---	---
Molybdenum	ppm	ASTM D5185(m)		59	---	---
Manganese	ppm	ASTM D5185(m)		0	---	---
Magnesium	ppm	ASTM D5185(m)		987	---	---
Calcium	ppm	ASTM D5185(m)		1119	---	---
Phosphorus	ppm	ASTM D5185(m)		1034	---	---
Zinc	ppm	ASTM D5185(m)		1222	---	---
Sulfur	ppm	ASTM D5185(m)		2733	---	---
Oxidation	Abs/.1mm	ASTM D7414*	>25	17.3	---	---
Visc @ 100°C	cSt	ASTM D7279(m)		11.1	---	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278845 **Received** : 20 Feb 2024
Lab Number : 02616523 **Tested** : 22 Feb 2024
Unique Number : 5733633 **Diagnosed** : 22 Feb 2024 - Kevin Marson
Test Package : MOB 1 (Additional Tests: FuelDilution, Glycol, KF, PercentFuel, Visual)

CON-DRAIN LTD.
 30 FLORAL PARKWAY
 CONCORD, ON
 CA L4K 4R1
 Contact: B BAXTER
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To discuss this sample report, contact Customer Service at 1-800-268-2131.
 Test denoted (*) outside scope of accreditation, (m) method modified, (e) tested at external lab.
 Validity of results and interpretation are based on the sample and information as supplied.